Reprinted from *Florida Entomologist*, Volume 73, Number (4), December, 1990.

PARASITIC NEMATODE OBSERVED IN THE FIRE ANT, *SOLENOPSIS RICHTERI*, IN ARGENTINA

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Two species of parasitic nematodes have been reported from fire ants sens. str., *Solenopsis (Solenopsis)* spp. Mitchell & Jouvenaz (1985) observed a single, unidentified nematode, about three mm long, in the gaster of each of nine alcohol-preserved workers of the tropical fire ant, *Solenopsis geminata* (F.), from Florida. These ants were among 270 collected six months earlier by others; subsequent efforts to collect living parasitized specimens were unsuccessful. The other nematode, *Tetradonema solenopsis* Nickle & Jouvenaz (1987) (Tetradomematidae) parasitizes the red imported fire ant, *Solenopsis invicta* Buren, in its native Brazil.

During a 1987 survey for natural enemies of fire ants in Argentina, DPW collected two colonies of the black imported fire ant, *Solenopsis richteri* Forel, which were parasitized by nematodes different from those previously observed. One colony was collected on the premises of the Instituto Nacional de Technologia Agropecuaria (INTA), Hurlingham, Buenos Aries Province; the other was collected on the roadside of RN 12 at Sagastume, Entre Rios Province. Both colonies were separated from soil by flotation (Jouvenaz et al. 1977) and hand carried (under Florida-USDA permits) to our laboratory in Gainesville, Florida, where they were maintained in soil.

In each colony, fewer than one percent of the workers were parasitized by one large (about 15 mm) nematode per host. The parasite appears to be a larval mermithid and therefore unidentifiable to genus (personal communication, W. R. Nickle, USDA, ARS, Beltsville, MD). The living parasitized workers were recognized by their greatly enlarged gasters. The heads and thoraces of parasitized major workers were modified to resemble those of minor workers. However, in contrast with other reported cases of mermithid parasitism (Wheeler 1910), these *S. richteri* workers did not have rudimentary ocelli.

Twenty-five parasitized workers were held in groups of five on moist sand in petri dishes. Although nematodes emerged from several of these workers, they did not survive. All three nematodes observed during emergence exited their hosts via the anus. Host ants died upon emergence of the parasite. As we had not succeeded in capturing the queens of either colony, and the infected ants died quickly under the stress of collection, transport, and culture, we were unable to propagate the colonies. The two parasitized fire ant colonies were among 130 colonies examined for natural enemies during our first trip to Argentina (March-April, 1987). On a subsequent trip (October-November, 1987) we examined 297 additional colonies, including 22 from the INTA field in which one of the infected colonies had been found. Only the two colonies collected on the first trip were parasitized by nematodes. Unfortunately, our resources and priorities for future research in South America preclude an active search for this nematode and minimize the probability that we will encounter it by chance.

We thank Dr. W. R. Nickle, USDA, ARS, Beltsville, MD, for examining the nematodes.

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